



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: AS907-3-1E-A2 (HTF7500E) BYPASS RATIO: 4.2
 UNIQUE ID NUMBER: 01P14HN015 PRESSURE RATIO (π_{co}): 22.3
 COMBUSTOR: SABER-1
 ENGINE TYPE: MTF RATED THRUST (F_{oo}) (kN): 31.6

REGULATORY DATA

| CHARACTERISTIC VALUE: | HC | CO | NO _x | SMOKE NUMBER |
|--|------|------|-----------------|--------------|
| D _p /F _{oo} (g/kN) or SN | 3.4 | 87.5 | 46.9 | 15.0 |
| AS % OF ORIGINAL LIMIT | 17.1 | 74.1 | 55.5 | 46.1 |
| AS % OF CAEP/2 LIMIT (NO _x) | | | 69.3 | |
| AS % OF CAEP/4 LIMIT (NO _x) | | | 70.4 | |
| AS % OF CAEP/6 LIMIT (NO _x) | | | 71.0 | |
| AS % OF CAEP/8 LIMIT (NO _x) | | | 75.3 | |

For non-volatile particulate matter (nvPM) emissions, please refer to the ICAO Engine nvPM Emissions Data Sheet.

DATA STATUS

- PRE-REGULATION
 x CERTIFICATION
 - REVISED (SEE REMARKS)

TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES
 x DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
 - OUT OF PRODUCTION (DATE: -)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

| MODE | POWER SETTING (%F _{oo}) | TIME (minutes) | FUEL FLOW (kg/s) | EMISSIONS INDICES (g/kg) | | | SMOKE NUMBER |
|--|-----------------------------------|----------------|------------------|--------------------------|------------|-----------------|--------------|
| | | | | HC | CO | NO _x | |
| TAKE-OFF | 100 | 0.7 | 0.349 | 0.05 | 0.55 | 18.01 | 13.6 |
| CLIMB OUT | 85 | 2.2 | 0.289 | 0.06 | 0.63 | 16.22 | 10.6 |
| APPROACH | 30 | 4.0 | 0.102 | 0.12 | 6.24 | 8.84 | 0.8 |
| IDLE | 7 | 26.0 | 0.049 | 1.11 | 31.03 | 3.94 | 1.8 |
| LTO TOTAL FUEL (kg) or EMISSIONS (g) | | | 154 | 91 | 2557 | 1400 | - |
| NUMBER OF ENGINES | | | | 3 | 3 | 3 | 3 |
| NUMBER OF TESTS | | | | 10 | 10 | 10 | 10 |
| AVERAGE D _p /F _{oo} (g/kN) or AVERAGE SN (MAX) | | | | 2.9 | 80.9 | 44.3 | 13.6 |
| SIGMA (D _p /F _{oo} in g/kN, or SN) | | | | 0.7 | 4.5 | 2.2 | 1.6 |
| RANGE (D _p /F _{oo} in g/kN, or SN) | | | | 1.91-3.55 | 74.1-86.71 | 38.67-46.11 | 9.2-13.6 |

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

| | |
|----------------------|---------------|
| BAROMETER (kPa) | 96.4-97.6 |
| TEMPERATURE (K) | 296-313 |
| ABS HUMIDITY (kg/kg) | 0.0013-0.0125 |

FUEL

| | |
|----------|-----------|
| SPEC | Jet A |
| H/C | 1.87-1.89 |
| AROM (%) | 16.9-20.5 |

MANUFACTURER: Honeywell
 TEST ORGANIZATION: Honeywell
 TEST LOCATION: Phoenix, AZ
 TEST DATES: 07/04/2010-29/07/2010

NO_x REGULATION PARAGRAPH

| | |
|---|-------------------|
| | 2.3.2 c) (CAEP/4) |
| | 2.3.2 d) (CAEP/6) |
| x | 2.3.2 e) (CAEP/8) |

REMARKS

- Reference: Honeywell Report 21-14050(29)-1
- Exhaust Smoke and Gaseous Emissions Similarity Analysis for the AS-907-3-1E Turbofan Engine
- Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
- NO_x levels in accordance with Part III, Chapter 2, 2.3.2 e) (CAEP/8)

Compliance with Fuel Venting requirements:

x ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)